

Replacement Sheet

Gene III leader sequence in KO7 helper phage

SEQ ID NO. 1	GTG AAA TAA TTA TTC GCA ATT CCT TTA GTT CCT TTC TAT TCT CAC TCC GCT
SEQ ID NO. 2	V K K L L F A I P L V V P F Y S H S A

Gene III leader sequence in KO7kpn helper phage

SEQ ID NO. 3	GTG AAA TAA TTA TTC GCA ATT CCT TTA <u>GTG</u> <u>GTA</u> CCT TTC TAT TCT CAC TCC GCT
SEQ ID NO. 2	V K K L L F A I P L V V P F Y S H S A



Fig. 3B

Replacement Sheet

GR2-Myc domain coding sequence in GM-UltraHelper phage genome

SEQ ID. NO.	4
KpnI	Gene III leader
GR2	
-----TTAGTGGTACCTTCTATTCTCACTCCGCT	ACATCCGCCTGGAGGGCCTACAGTCAGAAAACCATCGGCTGCAGA

SEQ ID. NO. 5

NotI
ATGAAAGATCACAGAGCTGGATAAAAGACTTGGAAAGAGGTCAACCATGCAGCTGCAGGACGTGGAGGTTGC GCGGCCGCA
M K I T E L D K D L E E V T M Q L Q D V G G C A A A

Myc-tag BgII Gene III
 GAACAAAAACTCATCTCAGAACAGGGATCTG AGATCTGGAGGGGT ACTGTTGAAAGTTGTTAGCAAA---
 E O K I I S E D L R S G G T V E S C L A K -

Fig. 5B



Replacement Sheet



Trypsin cleavage sites at GR2-Myc domain on GM-UltraHelper phage

SEQ ID NO. 6

GR2 domain

T S R **L** E G L Q S E N H R **L** R **M** K **I** T E L D K **D** L E E V

Myc-tag

T M Q L Q D V G G C A A A E Q K **L** I S E E D L R **S** G G G

Fig. 5C

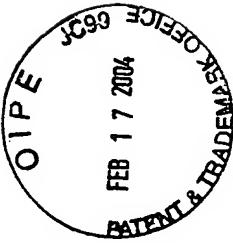
Replacement Sheet

Complete vector sequence of pABMX14

SESO ID NO. 7

Fig. 9B

Replacement Sheet



Engineered gene III sequence in CM phage - Nucleotide Sequence: SEQ ID. NO. 8;
Amino Acid Sequence: SEQ ID. NOS. 9 and 25

SEQ ID. NO. 8

KpnI Gene III leader Amber stop NotI
---TTAGTGGTACCTTCTATTCTCACTCCGCT TAGGCTTGGGGTGGTGGCCGGCAGAACAAAAACTCATCTCAGAAAGAGGATCTGAGATCT AGATCTGGAA

SEQ ID. NO. 9

- L V V P F Y S H S A * A C G A A E Q K L I S E E D E D L R S R S G

Gene III

GGGGT ACTGTTGAAAGTTGTTAGCAAAACCTCATACAGAAAATTCAATTACTAACGTTCTGGAAAGAACGACAAAAACTTTAGATCGTTACGCT-----
G G T V E S C L A K P H T E N S F T N V W K D D K T L D R Y A - -

Fig. 13B

Replacement Sheet

Complete vector sequence of pABMX15

SEQ ID NO. 10

Fig. 15B

Replacement Sheet

Engineered gene III Sequence in GMCT phage genome

Fig. 19B

Replacement Sheet



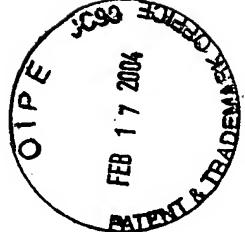
Feb 17 2004

PABMD1 vector: sequence from *AgeI* to *Sall* – Nucleotide Sequence: SEQ ID. NO. 13
Amino Acid Sequence: SEQ ID. NOS. 14 and 26

SEQ ID. NO. 13	<i>AgeI</i>	<i>EP</i>	<i>S/D</i>	SEQ ID. NO. 26
lac promoter/lac O1				NotI
AATTGTGAGCGGATAACAAATT ACCGGT	TCTT	TTAACCTTAG	TAAGGAGG	HA-tag
P8 Leader			AATTAAAAAA	
ATGAAAGAGTCTTTAGTCTCAAAGCCTCCGTAGCCGGTGTACCCCTCGATGCTAAGCTTCGCT				
SEQ ID. NO. 14				
M K S L V L K A S V A V A T L V P M L S F A S R				
Gene 3				
GGAGGGGT ACTGTTGAAAGTTAGCAAA	-----	GCTAACATACTGCGTAATAAGGAGTCTTAA	GTGAC	
G G T V E S C L A K	-----	A N I L R N K E S *		
PABMD2 vector: sequence from <i>AgeI</i> to <i>Sall</i>				
<i>AgeI</i>	<i>EP</i>	<i>S/D</i>		
lac promoter/lac O1				NotI
AATTGTGAGCGGATAACAAATT ACCGGT	TCTT	TTAACCTTAG	TAAGGAGG	HA-tag
pelB Leader			AATTAAAAAA	
ATGAAATACCTATTGCCTACGGCAGCCGGCTGGATTACTCGGGCCAGCCAGCCATGGGGCCCTGCAGGCCCTCTAGA				
M K Y L L P T A A A G L L A Q P A M A L Q A S R				
Gene 3				
GGAGGGGT ACTGTTGAAAGTTAGCAAA	-----	GCTAACATACTGCGTAATAAGGAGTCTTAA	GTGAC	
G G T V E S C L A K	-----	A N I L R N K E S *		
SEQ ID. NO. 26				
NotI	<i>AgeI</i>	<i>EP</i>	<i>S/D</i>	
AATTGTGAGCGGATAACAAATT ACCGGT	TCTT	TTAACCTTAG	TAAGGAGG	NotI
P8 Leader			AATTAAAAAA	HA-tag
ATGAAATACCTATTGCCTACGGCAGCCGGCTGGATTACTCGGGCCAGCCAGCCATGGGGCCCTGCAGGCCCTCTAGA				
M K Y L L P T A A A G L L A Q P A M A L Q A S R				
Gene 3				
GGAGGGGT ACTGTTGAAAGTTAGCAAA	-----	GCTAACATACTGCGTAATAAGGAGTCTTAA	GTGAC	
G G T V E S C L A K	-----	A N I L R N K E S *		
SEQ ID. NO. 26				
NotI	<i>AgeI</i>	<i>EP</i>	<i>S/D</i>	
AATTGTGAGCGGATAACAAATT ACCGGT	TCTT	TTAACCTTAG	TAAGGAGG	NotI
P8 Leader			AATTAAAAAA	HA-tag
ATGAAATACCTATTGCCTACGGCAGCCGGCTGGATTACTCGGGCCAGCCAGCCATGGGGCCCTGCAGGCCCTCTAGA				
M K Y L L P T A A A G L L A Q P A M A L Q A S R				
Gene 3				
GGAGGGGT ACTGTTGAAAGTTAGCAAA	-----	GCTAACATACTGCGTAATAAGGAGTCTTAA	GTGAC	
G G T V E S C L A K	-----	A N I L R N K E S *		

Fig. 22B

Replacement Sheet



GR1 Sequence Range: 1 to 146

XbaI 10 20 30 40 50
SEQ ID. NO. 15
TCTAGAGGTGGAGGGTGGAGGAAGTCCGGCTGGAGAAGGAGAA
SEQ ID. NO. 16
S R G G G E E K S R L L E K E N
60 70 80 90 100
CCGTGAAC TG GAAAAGATCATGCTGAGAAAGAGGGAGCGTGTCTGAAC
R E L E K I I A E K E E R V S E
110 120 130 140 ASCI
TGGCCATCAACTCCAGTCTGTAGGAGGTGTTAATAGGGCGGCC
L R H Q L Q S V G G C * *

GR2 Sequence Range: 1 to 140

XhoI 10 20 30 40 50
SEQ ID. NO. 17
TCTCGAGGAGGTGGAAACATCCGCCCTGGAGGGCTACAGTCAGAAAA
SEQ ID. NO. 18
S R G G G G T S R L E G L Q S E N
60 70 80 90 100
CCATCGCCTGCGAATGAAGATCACAGAGCTGGATAAAGACTTGGAAAGAGG
H R L R M K I T E L D K D L E E
110 120 130 NotI 140
TCACCATGCAGCTGCAGGACGTGGAGGTGCGCGGCC
V T M Q L Q D V G G C A A A

Fig. 23

Replacement Sheet

Complete vector sequence of pABMX22

SEQ ID NO. 23
 GCGCAACGCCATTAAATGG
 AAAAAATGAAAAGACTCT
 CCAATTGCCCCATAGTC
 AATAGCCGAAGGGCCCGG
 ACTTGGCCAGGCCCTAGG
 ACCTCGACCCCCAAAAAA
 TACAAACATCACCCCTAT
 TACAATTATGGTGGACTA
 AAGGAAAGTGTAGTATA
 CACGAGTGGTTACATCC
 GACGCCGGGCAAGACAA
 AACCATGAGTGATAAACAA
 ATGAAGGCCATCCAACAC
 GCGGATAAAGTGGAGGG
 CTCCCGTATCGTAGTTA
 TACTTTAGTTGATTAA
 AAGATCAAAAGGATCTTC
 AACCTGGCTTCAAGCAGCC
 CTGCACAGTGGCATAAGG
 CGGCCTGAGATTCACAA
 CCTTTTGTGGCCCTTTTAA
 GTGAGGCCAGGAGGGAA

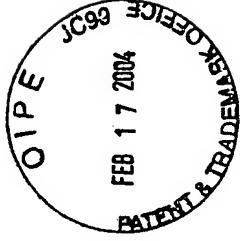


Fig. 25B

Replacement Sheet

Complete vector sequence of pABMXbd-1

SEO ID NO. 24

Fig. 26B